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VOL. 16 No. 12

March 25, 1966

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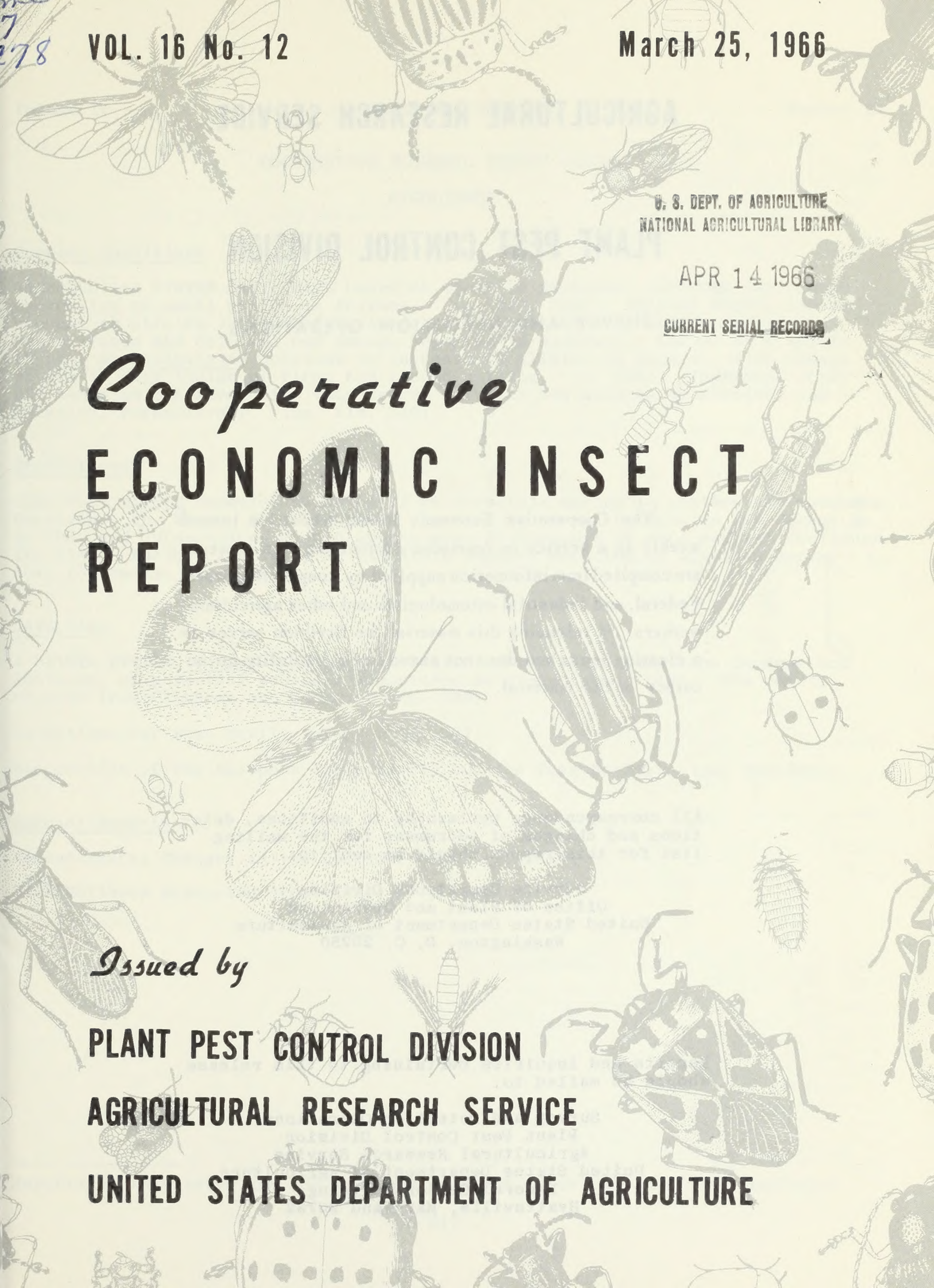

Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 16 March 25, 1966 Number 12

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

GREENBUG and WINTER GRAIN MITE heavy on wheat in Oklahoma, and CORN LEAF APHID increasing on small grains in Arizona. (pp. 217, 218). ALFALFA WEEVIL larvae present in alfalfa in several Eastern and Southern States; adults reported in Pennsylvania and Colorado and damage reported in Missouri. Larvae of a WEEVIL (Hypera brunneipennis) continue to increase in alfalfa in Arizona, with damage severe in many fields of first and second cutting. (p. 218). TARNISHED PLANT BUG reported for first time this season in wheat and alfalfa in Missouri and Delaware, respectively. (pp. 218, 219).

Predictions

CORN FLEA BEETLE expected to be heavy on corn this spring in eastern and southern Maryland. (p. 217). ALFALFA WEEVIL expected to be as abundant in New Jersey as in 1965 and infestations should appear soon in Virginia if warm weather continues. (p. 218). Further increases in PEA APHID numbers expected in Arkansas during next few weeks. (p. 219).

Detection

A SPIDER BEETLE (Ptinus variegatus) identified for first time from Georgia and Kentucky; of potential economic importance as stored grain pest. New county records from Oklahoma and Georgia. (p. 226).

Guidelines for Pear Sawfly Survey. (p. 227).

Recognition of the European Apple Sawfly and the Pear Sawfly. (pp. 228-230).

Special Reports

Nomenclatural Changes in the Leaf Beetles. (p. 232).

Pink Bollworm Regulated Areas (Map). (p. 233).

Reports in this issue are for week ending March 18 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING MARCH 21

HIGHLIGHTS: (1) Frontal passage ends warmth, Midwest. (2) Rain continues Northwest; dry Northeast.

TEMPERATURE: Except for the Atlantic coast and the West, temperatures were much above normal. Departures of more than 18° were reported in parts of the northern Plains as southerly winds brought warm air from the Gulf of Mexico to Canada. The temperature pattern was similar to that of the previous week, only the vast area of warmth shifted slightly eastward and became stronger. By the end of the week, however, temperatures returned to normal throughout the Midwest. A Low gradually moved from the eastern Rockies across the Great Lakes region, and a strong temperature gradient near its cold front resulted in the mercury dropping more than 30° in 24 hours. The cooler air was modified as it traveled to the Atlantic so that its effects were not as pronounced in the East as in the Midwest. A four week

Weather continued on page 232.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

GREENBUG (*Schizaphis graminum*) - OKLAHOMA - Ranged 1-14 per linear foot along south Canadian River in Blaine, Dewey, Roger Mills, Custer, Caddo, Ellis, Canadian, Grady and McClain Counties, except for 70 per linear foot in field in Goldsby area, McClain County; averaged 40 per linear foot in Grady County field. Ranged 2-25 per linear foot in wheat in Kingfisher, Major, and Garfield Counties. Reported heavy in certain areas of Tillman and Cotton Counties; controls about to begin. (Okla. Coop. Sur.). NEW MEXICO - Infestations in wheat mostly light and spotty in Quay County. (Kloepfer).

CORN LEAF APHID (*Rhopalosiphum maidis*) - OKLAHOMA - Ranged 2-20 per linear foot in wheat in Major, Garfield and Kingfisher Counties; very few seen in other areas. (Okla. Coop. Sur.). NEW MEXICO - Light and spotted in barley in Roswell area, Chaves County. (Mathews). ARIZONA - Increasing rapidly on small grains in Yuma and western Maricopa Counties. (Ariz. Coop. Sur.). CALIFORNIA - Nymphs and adults on barley in Santa Ana area, Orange County. (Cal. Coop. Rpt.).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - Light to medium in alfalfa in Yuma Valley, Gila Valley and Yuma Mesa, Yuma County. Few small colonies found in Wellton-Roll area. (Ariz. Coop. Sur.).

CORN, SORGHUM, SUGARCANE

CORN ROOTWORMS (*Diabrotica* spp.) - SOUTH DAKOTA - Populations of *D. virgifera* and *D. longicornis* changed abruptly in 1965. In study plots at Brookings, average seasonal populations of *D. virgifera* dropped to low of 1.0 adult per 100 plants in 1965. The sudden decrease followed yearly increases of 1.6 adults per 100 plants in 1962, 8.7 in 1963 and 21.6 in 1964. In contrast, populations of *D. longicornis* increased sharply to an overall plot average of 522.3 adults per 100 plants for the season. In 1962, 1963 and 1964, average seasonal populations of *D. longicornis* were 43, 181 and 164 adults per 100 plants, respectively, for each year. The ratio of *D. longicornis* to *D. virgifera* in 1965 was about 99 to 1, compared with 78 to 22 in 1964. Similar changes in the *D. longicornis-D. virgifera* ratio for adult populations have been noted in State survey reports from Minnesota and Iowa. It is postulated that *D. longicornis* was more able to withstand weather conditions experienced in the region during the winter of 1964-1965 than during previous 3 years. (Northern Grain Ins. Lab., Ent. Res. Div.).

CORN FLEA BEETLE (*Chaetocnema pulicaria*) - MARYLAND - Heavy numbers expected on corn this spring in eastern and southern sections; winter temperatures and other factors favorable for heavy carryover of adults. (U. Md., Ent. Dept.).

SMALL GRAINS

ENGLISH GRAIN APHID (*Macrosiphum avenae*) - ARIZONA - Appearing on small grains in Wellton-Roll area, Yuma County. (Ariz. Coop. Sur.). OKLAHOMA - Counts of 1-10 per linear foot common in wheat in southwest, west, central, and northwest areas. Occasionally up to 35 per linear foot. Numerous winged adults seen at lights in Weatherford, Custer County, night of March 15. (Okla. Coop. Sur.). ARKANSAS - Numbers increased significantly but not high; 50-75 per 100 sweeps in northwest. (Ark. Ins. Sur.). MISSOURI - Alatae and apterae present in Dunklin County wheat; 5 per foot of row in small wheat just beginning spring growth. (Houser).

GRAIN APHIDS - SOUTH CAROLINA - Less destructive than usual on small grains. Doubtful if problem develops before harvest. Problem in area most frequently in connection with early planted grain for fall and winter grazing. (Nettles, Mar. 15). OKLAHOMA - *Rhopalosiphum padi* ranged 1-20 per linear foot in most wheat in central, west central and northwest areas; occasionally up to 50 per linear foot. (Okla. Coop. Sur.). CALIFORNIA - *Myzus persicae* nymphs and adults observed on barley in Santa Ana area, Orange County. (Cal. Coop. Rpt.).

TARNISHED PLANT BUG (Lygus lineolaris) - MISSOURI - First adult of season taken in wheat in Scott County. (Houser).

GREAT BASIN WIREWORM (Ctenicera pruinina) - IDAHO - Probably this species, ranged 3-4 per foot of row in newly planted grain field near Parma, Canyon County. (Scott).

WINTER GRAIN MITE (Penthaleus major) - OKLAHOMA - Heavy in wheat in Tillman and Cotton Counties and in scattered fields in Garfield County. Ranged 1-110 per linear foot in scattered fields in central and west central areas. Only mite seen in wheat checked in those areas. Moderate to heavy in wheat and barley in Kingfisher County. (Okla. Coop. Sur.).

TURF, PASTURES, RANGELAND

AN ARCTIID MOTH (Haploa sp.) - TEXAS - Damaging larval numbers found on pasture near Spring, Montgomery County. (Straughan).

FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - NEW JERSEY - Expected to be as abundant as in 1965; growers urged to prepare spray rigs. (Ins.-Dis. Newsltr.). PENNSYLVANIA - Adults active in Somerset County March 2 on alfalfa; mating in Westmoreland County March 11. Some females gravid in latter county, but no egg laying. (Udine). MARYLAND - Light numbers of small larvae, mostly first instar, feeding on new alfalfa growth in Dorchester and Worcester Counties. (U. Md., Ent. Dept.). VIRGINIA - Larvae detected throughout State. If warm weather continues, infestations should appear sooner than usual. Larvae 1-15 per 10 alfalfa tips in south central area; most second instar. (Isakson). Larvae 1-10 per 12 alfalfa tips in 3 Pittsylvania County fields; most second instar. (Dominick). INDIANA - Egg hatch well underway in southern Harrison County; first and second instars common on alfalfa. (Wilson). TENNESSEE - Larvae feeding in all alfalfa fields surveyed in Henry County March 14. Growth and degree of infestation do not warrant treatments at this time. Fields should be observed closely until first cutting. (Johnson). NORTH CAROLINA - Larvae appearing in Piedmont area; primarily first stage; occasional second stage noted. Development about 2 weeks later than normal. Alfalfa just beginning to grow; 2-3 inches high. (Campbell). MISSISSIPPI - Counts by county as follows: Bolivar, 33 larvae per square foot in 5 square-foot samples; 2 cocoons. Washington, 84 larvae per square foot in 5 square-foot samples; 1 cocoon. Leflore, 70 larvae per square foot in 5 square-foot samples; 2 cocoons. Sunflower, one larva found in 5 square-foot samples; this newly planted field. (Dinkins). ARKANSAS - Egg hatch continues in northeast. (Ark. Ins. Sur.). MISSOURI - Egg hatch continues; early stage larvae damaging 0-10 percent of alfalfa terminals in Pemiscot County. Eggs hatching at Fredericktown, Madison County; less than 1 percent terminal damage observed. (Houser). COLORADO - Adults collected from alfalfa in Larimer County; Bathyplectes curculionis (an ichneumon wasp) also noted. Alfalfa showed some growth last few days. (Simpson, Daniels). Adults becoming active with higher daytime temperatures in few fields showing green. (Bulla).

CLOVER LEAF WEEVIL (Hypera punctata) - MARYLAND - Larvae feeding on new growth of alfalfa in Dorchester and Worcester Counties. (U. Md., Ent. Dept.). IDAHO - Observed on alfalfa crowns in Twin Falls County field. (Youtz, Feb. 19).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - IDAHO - Observed in Twin Falls County alfalfa field on crowns. (Youtz, Feb. 19).

A WEEVIL (Hypera brunneipennis) - ARIZONA - Larval counts continue increase in many alfalfa areas of Yuma County, particularly on Yuma Mesa and in Gila Valley. Damage severe in many fields of first and second cutting. Lighter but increasing populations found in Maricopa and Pinal Counties. (Ariz. Coop. Sur.).

PEA APHID (*Acyrthosiphon pisum*) - ARIZONA - Medium in first and second-cutting alfalfa in Yuma, Maricopa and Pinal Counties. (Ariz. Coop. Sur.). NEW MEXICO - Very light, spotted infestations found in southern Bernalillo County. (Heninger). MISSISSIPPI - Total of 23 adults and nymphs taken on 5 square feet of alfalfa in Bolivar County. In 100 sweeps, 20 adults and nymphs taken on oats in Leflore County, 13 adults and nymphs taken on wheat in Sunflower County. (Dinkins). ARKANSAS - Increased slightly but remains low in northwest. Further increase expected during next few weeks. (Ark. Ins. Sur.). MISSOURI - Light in Pemiscot County alfalfa; 100 per 100 sweeps. (Houser). MARYLAND - Light populations feeding on new alfalfa growth in Dorchester and Worcester Counties. (U. Md., Ent. Dept.).

TARNISHED PLANT BUG (*Lygus lineolaris*) - DELAWARE - First adults of season active in alfalfa in New Castle County. (Burbutis).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - Nymphs increasing in alfalfa in most areas of Yuma and Maricopa Counties; 400 per 100 sweeps. (Ariz. Coop. Sur.).

A FULGORID PLANTHOPPER (*Acanalonia bivittata*) - NEBRASKA - This unusual insect found abundant in alfalfa. Nymphs and adults (det. by J. P. Kramer) averaged 1 per sweep in Howard County alfalfa field in mid-July 1965. When confined to alfalfa in the laboratory, nymphs completed development; resulting adults inserted eggs into alfalfa stems. In August, adults were again observed in same field where previously collected and in nearby field, but only near margins. In mid-August, they were abundant along margins of field in Dundy County and were particularly heavy on Mexican fireweed (*Kochia scoparia*) growing in waste areas adjacent to this field. Although *A. bivittata* can develop and oviposit on alfalfa, it does not appear to be a serious pest of this plant. (Manglitz).

GARDEN SYMPHYLAN (*Scutigerella immaculata*) - UTAH - Damaged alfalfa and other experimental plants in greenhouse on Utah State University campus at Logan; necessitated soil treatments. (Bohart, Knowlton).

COTTON

BOLL WEEVIL (*Anthonomus grandis*) - TEXAS - Hibernation survey on High Plains revealed no weevils above or below Cap Rock. Surface trash examined in Wilbarger County revealed overwintering population of approximately 3,800 per acre; 6 hibernation cages at Presidio yielded only one live weevil. (PPC South. Reg., Feb. Rpt.).

For other Cotton Insects, see Federal-State Plant Protection Programs, page 224.

SUGAR BEETS

GREEN PEACH APHID (*Myzus persicae*) - WASHINGTON - Several apterous stages on sugar beets growing in tare (trash) piles at Harrah, Yakima County, February 15. First time in 4 years summer forms found under these conditions in area. (Wallis).

POTATOES, TOMATOES, PEPPERS

AN ARCTIID MOTH (*Haploa* sp.) - TEXAS - Larvae found in damaging numbers on greenhouse tomatoes near Spring, Montgomery County. (Straughan).

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - ALABAMA - Few adults observed in ground trash samples. (McQueen).

BEANS AND PEAS

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - ALABAMA - Large number of adults of this species and *Cerotoma trifurcata* taken from ground trash samples in Morgan County. Subzero weather and snow apparently did not materially affect survivals. (McQueen).

CUCURBITS

DARKLING BEETLES (*Blapstinus* spp.) - ARIZONA - Medium and migrating into seedling melon fields in Yuma County; damage light in many fields. (Ariz. Coop. Sur.).

MELON APHID (*Aphis gossypii*) - ARIZONA - Adults noted in young melon fields; may become problem in cantaloup areas of Yuma County. (Ariz. Coop. Sur.).

DECIDUOUS FRUITS AND NUTS

GREEN PEACH APHID (*Myzus persicae*) - COLORADO - Overwintering egg counts near completion on peaches in Mesa County. First nymphs March 11; 5-10 percent of eggs hatched March 16th. Egg counts moderate to high; 1-15 per fruit bud. Dormant and delayed sprays stressed. (Bulla).

PEAR PSYLLA (*Psylla pyricola*) - WASHINGTON - Adults present on pears at Prosser, Benton County, February 23; in about 20 minutes observation time, 12 adults noted on spurs. No eggs found. (Cone).

WHITE PEACH SCALE (*Pseudaulacaspis pentagona*) - ALABAMA - Heavy on few peach trees in Dallas County. (Cain et al.).

HICKORY SHUCKWORM (*Laspeyresia caryana*) - ALABAMA - Pupation noted in all pecan shucks observed in Dallas and Lee Counties. Some full-grown in shucks in Tuscaloosa County. (Cain et al.).

A FRUIT-TREE MITE (*Bryobia rubrioculus*) - CALIFORNIA - Eggs and nymphs medium on almond trees locally in Clovis, Fresno County. (Cal. Coop. Rpt.).

CITRUS

CHAFF SCALE (*Parlatoria pergandii*) - FLORIDA - All stages infesting citrus in grove in Plymouth, Orange County. (Musgrove, Smith, Walker).

A CITRUS SNOW SCALE (*Unaspis citri*) - FLORIDA - All stages infesting grapefruit, Hamlin orange and *Citrus* spp. in nurseries at Apopka and Plymouth, Orange County. (Smith, Musgrove).

COTTONY-CUSHION SCALE (*Icerya purchasi*) - ARIZONA - Infestations found in 3 adjacent citrus groves in Yuma County. No increase in *Rodolia cardinalis* (vedalia) observed in area. (Ariz. Coop. Sur.).

For other Citrus Insects, see Federal-State Plant Protection Programs, page 224.

SMALL FRUITS

CURRANT BORER (*Ramosia tipuliformis*) - CALIFORNIA - Larvae medium on currant bushes in Sacramento, Sacramento County. (Cal. Coop. Rpt.).

GENERAL VEGETABLES

BEET ARMYWORM (*Spodoptera exigua*) - ARIZONA - Increasing on Yuma County lettuce; some controls required. (Ariz. Coop. Sur.).

GREEN PEACH APHID (*Myzus persicae*) - DELAWARE - Apterous adults and nymphs common on spinach; 3 per plant in large commercial field in western Kent County. (Burbutis).

For other General Vegetable Insects, see Federal-State Plant Protection Programs, page 224.

ORNAMENTALS

AN OLETHREUTID MOTH (*Epinotia subviridis*) - CALIFORNIA - Larvae of this species and *Herculia phoezalis* (a pyralid moth) heavy on Italian cypress and Pfitzer junipers in Laguna Beach, Orange County. (Cal. Coop. Rpt.).

A PLUME MOTH (*Platyptilia* sp.) - CALIFORNIA - Larvae of this and *Argyrotaenia* sp. damaging flower buds of geranium plants in Encinitas, San Diego County. (Cal. Coop. Rpt.).

GREEN PEACH APHID (*Myzus persicae*) - NEW YORK - Number of specimens collected by W. T. Johnson, February 4, from leaves of *Crocus* sp. being forced indoors. Further note of March 14 states that *M. persicae* came from several bulbs in single pot and that infestation resulted in all of above-ground parts of plants being killed. No winged forms found. Det. by M. D. Leonard. According to Dr. Leonard, only other similar occurrence of which he knows is collection of this species from Ithaca, on October 24, 1927, on "stored crocus bulbs" by Grace Griswold. (Leonard).

APHIDS - OKLAHOMA - *Cinara tujifilina* continues heavy on some Payne County arborvitae. (Okla. Coop. Sur.). NEW MEXICO - *Cinara* sp. light and spotty on ponderosa pines in Albuquerque area, Bernalillo County. (Heninger). ARIZONA - *Aphis craccivora* very heavy in new growth on ornamental citrus in Yuma, Yuma County. (Ariz. Coop. Sur.) CALIFORNIA - *Macrosiphum euphorbiae* numphs and adults heavy on viburnum plants locally in Lindsay, Tulare County. *Aphis sambucifoliae* nymphs and adults heavy on elderberry plants in Santa Ana, Orange County. Populations early this season. (Cal. Coop. Rpt.).

PINE NEEDLE SCALE (*Phenacaspis pinifoliae*) - NEW MEXICO - Noted on number of ornamental plantings of ponderosa pine in Albuquerque area, Bernalillo County. (Heninger). UTAH - Numerous on several Colorado spruce trees at Logan, Cache County. (Knowlton).

ARMORED SCALES - ALABAMA - *Fiorinia theae* heavy on camellia and Burford holly in Lee, Dallas and Escambia Counties. (May, Cain et al.). CALIFORNIA - *Aspidiotus perniciosus* heavy on rose bushes in Colusa, Colusa County. Particularly heavy in many locations this season. (Cal. Coop. Rpt.).

SOFT SCALES -CALIFORNIA - *Coccus hesperidum* and *Saissetia oleae* were heavy on yucca nursery stock in Cardiff, San Diego County. *S. oleae* heavy on gardenia plants locally in Colusa, Colusa County. Occurred in several different stages. (Cal. Coop. Rpt.). FLORIDA - *Ceroplastes rubens* infesting following host plants in nursery at Boynton Beach, Palm Beach County: *Aglaonema* sp., *Anthurium* sp., *Aralia elegantissima*, birds-nest-fern (*Asplenium nidus*), *Philodendron pertusum*, *Pteris* sp., frangipani (*Plumeria* sp.), ivy (*Hedera* sp.), *Ixora* sp., *Medinilla* sp., and neanthe bella palm (*Chamaedorea* sp.). (Fla. Coop. Sur., Mar. 10-14).

SUBTERRANIAN TERMITES (*Reticulitermes* spp.) - INDIANA - Workers reported attacking juniper grafts in greenhouse in Richmond, Wayne County. (Schuder).

For other Ornamental Insects, see Federal-State Plant Protection Programs, page 224.

FOREST AND SHADE TREES

CALIFORNIA OAKWORM (*Phryganidia californica*) - CALIFORNIA - Early instars infesting oak trees in Danville, Contra Costa County. Adult flights exceedingly early this season. Cold weather slowed larval development. Early infestations serious on deciduous oaks. (Cal. Coop. Rpt.).

FALL CANKERWORM (*Alsophila pometaria*) - MICHIGAN - Adult males active recently in several locations in Washtenaw, Livingston and Ingham Counties. (Dowdy).

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - VIRGINIA - First-stage larvae noted on apple at Richmond. (Matheny). Eggs hatching; most conspicuous on wild cherry and apple. (Isakson).

SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) - OKLAHOMA - Large numbers of larvae present in dying elm trees checked near Boomer Lake, Payne County. (Okla. Coop. Sur.).

OLEANDER SCALE (*Aspidiotus hederae*) - CALIFORNIA - Locally heavy on palm trees in Fairfield, Solano County. (Cal. Coop. Rpt.).

A PINE RESIN MIDGE (*Retinodiplosis resinicola*) - TEXAS - Moderate locally on pine trees in Houston area, Harris County. (Kay).

AN ANT (*Prenolepis imparis californica*) - CALIFORNIA - Adults heavy on redwood trees in San Jose, Santa Clara County. (Cal. Coop. Rpt.).

For other Forest and Shade Tree Insects, see Federal-State Plant Protection Programs, page 224.

MAN AND ANIMALS

MOSQUITOES - OKLAHOMA - *Culiseta inornata* adults continue active. First and second-stage larvae of unspecified species found around Stillwater, Payne County. (Okla. Coop. Sur.). TEXAS - *C. inornata* dominant in Jefferson County light traps; some *Culex* sp. (probably *salinarius*) found. Very few *Anopheles quadrimaculatus* caught. Larvae of *Culex restuans*, *C. salinarius*, *Culiseta inornata*, *Aedes sollicitans* and *A. vexans* also noted. (Jeff. Co. Mosq. Cont. Dist., Feb. Rpt.; Thompson). ARKANSAS - Active in eastern area. (Ark. Ins. Sur.). LOUISIANA - Larval collections by Jefferson Parish Department of Mosquito Control for period March 4-11 yielded *Anopheles quadrimaculatus*, *Culex salinarius* and *Culiseta inornata*. Light trap collections increased slightly with increasing numbers of *A. crucians* and *Aedes vexans*. *C. salinarius* and *Culiseta inornata* still predominating in light traps. (Stokes). ALABAMA - Adults numerous and biting people in Auburn, Lee County, in late afternoon where temperatures over 70 degrees. (McQueen).

CATTLE LICE - ALABAMA - Increase in activity noticeable in Bibb and Hale Counties. (Odom, Deavours). OKLAHOMA - Several species heavy on cattle in Noble County, moderate in Mayes County. (Okla. Coop. Sur.). UTAH - Controls applied to approximately 1,000 additional cattle in Millard County since mid-December 1965. (Hall, Knowlton).

HOG LOUSE (*Haematopinus suis*) - OKLAHOMA - Moderate on hogs in Mayes County. (Okla. Coop. Sur.).

SHEEP KED (*Melophagus ovinus*) - TEXAS - Moderate on sheep near Eastland, Eastland County. (Cooper).

HOUSE FLY (*Musca domestica*) - ARKANSAS - Adults active, especially around poultry houses in southwest. (Ark. Ins. Sur.).

BLACK WIDOW SPIDER (*Latrodectus mactans*) - OKLAHOMA - Becoming more active in homes as weather warms up. (Okla. Coop. Sur.).

A BROWN SPIDER (*Loxosceles reclusa*) - OKLAHOMA - Becoming more active in homes as weather warms up. (Okla. Coop. Sur.). TEXAS - Several found in household in Pampa, Gray County. (Whaley).

TICKS - ARKANSAS - Primarily *Amblyomma americanum*, taken on people in Fayetteville area. (Ark. Ins. Sur.). TEXAS - *Dermacentor albipictus* locally light on beef cattle in Throckmorton County. (Lindey).

HOUSEHOLDS AND STRUCTURES

COCKROACHES - MARYLAND - *Blattella germanica* heavy in large building at Suitland, Prince Georges County. (U. Md., Ent. Dept.). UTAH - *Blatta orientalis* a problem in numerous Davis County homes. (Rogers, Knowlton).

SUBTERRANEAN TERMITES (*Reticulitermes* spp.) - MARYLAND - *R. flavipes* reproductives swarming inside buildings statewide. (U. Md., Ent. Dept.). COLORADO - Adults of *R. tibialis* swarming in Cortez area, Montezuma County. Probably *Reticulitermes* sp. swarming in Larimer County. (Hantsbarger).

STORED PRODUCTS

A SPIDER BEETLE (*Ptinus variegatus*) - This species has now been identified from GEORGIA and KENTUCKY. Undoubtedly introduced, this insect was originally reported in the United States from North and South Carolina and Virginia, and has been intercepted in U. S. Quarantine with poplar seeds. *P. variegatus* itself is of potential economic importance because other ptinids are known as stored product pests. (Ent. Res. Div.).

LESSER MEALWORM (*Alphitobius diaperinus*) - DELAWARE - Larvae, pupae and adults numerous in two poultry houses in Sussex County. (Bray).

BENEFICIAL INSECTS

Beneficial Insects in Mississippi: Specimens per 100 sweeps in oats as follows: Sunflower County - 4 *Scymnus* spp., 10 *Nabis* spp., 2 *Geocoris* spp. In wheat in Leflore County - 2 *Scymnus* spp., 13 *Nabis* spp., 1 *Geocoris* sp. (Dinkins).

Beneficial Insects in Oklahoma: Various predators becoming active in central and west central areas; *Nabis* spp. and *Chrysopa* spp. noted in wheat; one or more species present in most fields checked. (Okla. Coop. Sur.).

A TWISTED-WING INSECT (*Halictophagus* sp.) - CALIFORNIA - Adults of this parasite of *Circulifer tenellus* (beet leafhopper) taken on plantago with *C. tenellus* in Taft area, Kern County. (Cal. Coop. Rpt., Mar. 11).

HONEY BEE (*Apis mellifera*) - MICHIGAN - Workers active for first time this season in many Lower Peninsula counties March 13; temperatures in 50's. Activity continued on several warm days. (Dowdy).

FEDERAL-STATE PLANT PROTECTION PROGRAMS

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

During the period March 13-19 no cases were reported in the United States. The Republic of Mexico reported 33 cases as follows by State: Baja California 2, Territorio sur de Baja California 2, Sonora 17, Chihuahua 7 and Tamaulipas 5. Sterile screw-worm flies released: Texas 11,686,250 and Mexico 106,241,200.

	Positive Cases		Negative Cases		Ratio of Positive Cases to 100 Cases Negative	
Year	Current	Cumulative	Current	Cumulative	Current	Cumulative
Table 1.	Comparison of specimens reported during corresponding week in 1964 and 1965 in Southwestern Eradication Area. (1966 area figures include cases reported from Arizona and/or California; 1965 figures reflect those from the 5-State area).					
1964	2	3	129	497	1.55	0.60
1965	0	4	65	533	0.00	0.75
1966	0	26	34	223	0.00	11.65
Table 2.	Comparison of specimens reported during corresponding week and in a corresponding area in 1965 in the United States-Mexico Barrier Zone.*					
1965	60	472	35	302	171.42	156.29
1966	33	428	19	184	173.68	232.60

Mexico Field Sutdy - During this period 337 cases were identified in Mexico south of the Barrier Zone as follows: Chiapas 37, Oaxaca 29, Jalisco 29, Veracruz 35, Guerrero 26, Guanajuato 3, Nayarit 12, Sinaloa 40, Durango 2, Campeche 10, Yucatan 37, Puebla 9, Tabasco 32, Hidalgo 2, Michoacan 13, San Luis Potosi 15, Morelos 1, Colima 4, Queretaro 1.

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* Barrier Zone - Area in which screw-worm eradication operations are being carried out in an effort to prevent establishment of self-sustaining screw-worm populations in the United States. (Anim. Health Div.).

BOLL WEEVIL COMPLEX (Anthonomus grandis complex) - MEXICO - Hibernation survey in Presidio-Ojinaga area yielded one live adult in field on Rio Conchos near Ojinaga; 67 yards of trash from 17 fields collected and examined. Total of 2,200 bolls from 11 fields in treated area at La Salina, Sonora, yielded 1,279 live forms and 81 dead forms of Anthonomus sp., or 58 per 100 bolls. Four fields outside treated area yielded 562 live forms and 89 dead forms of Anthonomus sp. from 800 bolls. This 70 live weevils per 100 bolls. (PPC Mex. Reg., Jan. Rpt.).

BROWN-TAIL MOTH (Nygmia phaeorrhoea) - Annual winter web survey in northern New England began February 14; webs found in 5 towns in NEW HAMPSHIRE in known infested areas. Heaviest infestations at Canterbury (125-150 webs) and Gilmantown (50-75 webs). Infestations at Weare, Allenstown and Mont Vernon consist of 1-5 webs per location. Surveys in MAINE and in southern New England negative. (PPC East. Reg., Feb. Rpt.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Biological Control Zone - Inspection of 8,035 trees on 74 properties in Municipios Guemez and Hidalgo, Tamaulipas, revealed light infestations on 86 trees on 21 properties in latter area. Parasite captures of 523,200 Prospaltella opulenta (a eulophid) made in grove in Municipio Padilla, Tamaulipas. Reports of parasites noted in 16 States and 2 Territories; releases needed in 11 States. Parasite captures possible on 8 properties in 3 States and one Territory. Chemical Control Zone - Inspection of 58,432 trees, including 4,751 nursery stock, inspected on 2,185 properties in 13 municipios in 4 States. All negative except in Municipio of Linares, Nuevo

Leon, where 74 trees on 45 urban properties infested. Area about 25 city blocks; infestations light except on 3 trees in center of outbreak. (PPC Mex. Reg., Feb. Rpt.).

CITRUS WHITEFLY (Dialeurodes citri) - CALIFORNIA - Discovery of light, new infestation on gardenia in Fresno, Fresno County, extends current area to be treated by 7 city blocks. New Infestation is farily well delineated; infested and buffer blocks being treated. In Sacramento area, Sacramento County, intensive inspection revealed infestation on additional city block in Foothill Farms subdivision; perimeter grid pattern inspection revealed single gardenia plant infested in West Sacramento, Yolo County; infestation approximately 1.25 mile from nearest infested properties in Sacramento. Treatment in Sacramento area now completed. (Cal. Coop. Rpt.).

A FRUIT FLY (Anastrepha suspensa) - FLORIDA - Four larvae found in 2 grapefruits. Owner reported that many fruits dropped week before; most of them picked and buried. Larvae taken from firm fruit. (Fla. Coop. Sur.).

FRUIT FLIES - MEXICO - Inspection of Steiner traps in 17 States, the Federal District and Territorio de Quintana Roo negative. (PPC Mex. Reg., Feb. Rpt.).

GYPSY MOTH (Porthetria dispar) - Scouting around positive trapsites in NEW JERSEY revealed single egg clusters in Middletown Township, Monmouth County; Stillwater Township, Sussex County; and Cassville, Ocean County. Infestations in Union and Ocean Townships, Ocean County, now consist of approximately 20 new egg clusters. These extend nearly 5 miles from positive trapsite. Egg clusters now found in all 4 positive trapsites in Ocean County. Surveys of 40 properties in MARYLAND, DELAWARE and DISTRICT OF COLUMBIA negative. (PPC East. Reg., Feb. Rpt.).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - ALABAMA - Winged forms plentiful in mounds examined in Dallas County. (Cain et al.). Treatment areas surveyed in Carteret and Craven Counties, NORTH CAROLINA; few mounds found near Morehead City. Limited extensions of infested areas found in Horry, Florence, Charleston and Dorchester Counties, SOUTH CAROLINA. Found for first time in Cook County, GEORGIA, on State Highway 37 near Colquitt County line. Minor extensions found in several other counties; mounds treated when found. New areas found infested in Citrus, Hernando, Orange, Sarasota, Sumter and Wakulla Counties, FLORIDA. All mounds in Orange and Citrus Counties treated. New infestations found in Copiah and Lee Counties, MISSISSIPPI; treatments applied to mounds in Covington, Monroe and Pike Counties. Small extensions of infested areas found in Bienville, Caldwell, Lincoln and Natchitoches Parishes, LOUISIANA. Small infestations found in TEXAS in Bexar County and in San Antonio. Treatments applied in these areas and in Austin. (PPC South. Reg., Feb. Rpt.).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Survey of wild hosts in Calhoun County revealed 4 live larvae from 500 pods of 2 species of wild hibiscus; 50 green cotton bolls collected in Martin County infested. Surface debris in San Jacinto County yielded 4 larvae. (PPC South. Reg., Feb. Rpt.). Early March survey in Trans-Pecos area revealed overwintering larvae present in almost every cotton field. As many as 5 live larvae found in one small cotton boll in field where stalks not destroyed. In Fort Stockton and Coyanosa area, Pecos County, as many as 14 live larvae recorded per 10 cotton bolls. (Neeb). ARIZONA - Live adult taken March 15 from field cage northeast of Solomon, Graham County. (Ariz. Coop. Sur.) See map page 233.

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - Additional infested property found in Decatur County, GEORGIA. Surveys in ALABAMA revealed 11 new infestations in Geneva County and one in Covington County. Two new infested properties found in Perry County and one each in Jones and Hines Counties, MISSISSIPPI. Hines County infestation caused by bringing infested material from Copiah County. (PPC South. Reg., Feb. Rpt.).

TULIPTREE SCALE (*Toumeyella liriodendri*) - CALIFORNIA - Intensive survey in areas adjacent to 3 known infestations in San Jose, Santa Clara County, nearly complete. No new finds made after inspection of 487 residential and 875 streetside host plants. (Cal. Coop. Rpt.).

WHITE-FRINGED BEETLES (*Graphognathus* spp.) - VIRGINIA - Treatment of infested area at Camp Allen, Norfolk, underway; 63 acres treated. (PPC East. Reg., Feb. Rpt.). Small extension of infested area found in Bladen County, NORTH CAROLINA. Treatment completed in known infested areas of Bamberg and Orangeburg Counties, SOUTH CAROLINA. Extension of infestation found in Lauderdale County, TENNESSEE. Additional 140 acres infested on City of Monroe Airport, Ouachita Parish, LOUISIANA (PPC South. Reg., Feb. Rpt.).

CORRECTIONS

CEIR 16(3):44 - Brachyrhinus rugosostriatus - Change page number from 249 to 1249.

CEIR 16(9):165 - AVOCADO INSECTS - Sparganothis sulfurana should read *Amorbia essigella*. *S. sulfurana* does not occur in California.

CEIR 16(10):188 - First paragraph - A DARKLING BEETLE (Eliodes suturalis) should read A DARKLING BEETLE (*Coniontis* sp.). *E. suturalis* has been eradicated from California. (Cal. Coop. Rpt.).

CEIR 16(10):189 - Paragraph 3, end of line 4: Pentatrichopus should read *Chaetosiphon*.

LIGHT TRAP COLLECTIONS

FLORIDA (Gainesville, 3/15; blacklight) - *Prodenia ornithogalli* 1, *Pseudaletia unipuncta* 1.

GEORGIA (Tifton, 3/9-16; temp. 56-75°F.; precip. 0.35 in.; blacklight) - *Heliothis zea* 1.

SOUTH CAROLINA (Charleston, 3/7-13; temp. 28-73°F.; precip. 0.13 in.; blacklight) - *Pseudaletia unipuncta* 2, *Feltia subterranea* 1.

TEXAS (Brownsville, 3/12-18; temp. 53-80°F.; precip. trace; 2 blacklight) - *Agrotis ipsilon* 2, *Estigmene acrea* 2, *F. subterranea* 18, *H. zea* 4, *Peridroma saucia* 29, *Prodenia ornithogalli* 1, *Manduca quinquemaculata* 1, *P. unipuncta* 9, *Spodoptera frugiperda* 4, *Trichoplusia ni* 2. (Waco, 3/12-18; blacklight) - *P. unipuncta* 18, *Peridroma saucia* 14, *F. subterranea* 8, *E. acrea* 1.

INSECT DETECTION

A SPIDER BEETLE (*Ptinus variegatus*) identified from Georgia and Kentucky. Of potential economic importance as other ptinids are known as stored product pests. (Ent. Res. Div.). (p. 223).

AN ANT (*Lasius neoniger*) - OKLAHOMA - Taken in Dewey County March 14, 1966; a new county record. (Okla. Coop. Sur.).

IMPORTED FIRE ANT (*Solenopsis saevissima richteri*) - GEORGIA - Found for first time in Cook County. (PPC). (p. 225).

Guidelines for Pear Sawfly Survey

Introduction: Pear sawfly (*Hoplocampa brevis*), an economic pest of pear in Europe, was discovered in Canada in 1964. In connection with this report, Federal taxonomists reviewed specimens of this sawfly group in the United States National Museum and found *H. brevis* adults had been submitted from Newburgh, New York, in 1953. Details of these reports were included in Cooperative Economic Insect Report 16(4):62-64, January 28, 1966. Survey for this pest is indicated in all pear-growing areas of the Country, especially in the Northeast.

Survey procedures: Adults are needed for positive determination. They are difficult to collect. Dr. L. W. Boulanger, now at the University of Maine, used sticky board traps placed in pear orchards to capture the adults taken in New York in 1953. He favors this method; however, specimens may be badly damaged by collection on sticky boards if they are not handled properly. The collector should carry a small bottle of petroleum solvent such as varsol and a medicine dropper. A few drops of solvent on the specimen to be removed will quickly soften the sticky material. The specimens should then be placed in vials containing the same solvent. Generally, by the time the specimens are to be checked, the sloshing motion has dissolved the sticky material. The specimens are then placed on paper toweling and transferred to alcohol.

Promising captures on sticky board traps should be followed up by sweeping the pear blossoms with a sweep net. It would seem that about one trap per acre in selected pear orchards would be sufficient for an exploratory detection survey. The trap should be exposed in the lower portion of the tree but high enough to be beyond the easy reach of children or animals. In Canada, Dr. G. G. Dustan, Canada Department of Agriculture, reports that adults were so scarce in Ontario in 1965 that only 3 were recovered. These were obtained by tapping limbs over a cotton sheet.

Survey for larvae in Canada was conducted by scouting in pear orchards for the characteristic hole in the side or calyx end of the small fruits. Suspected fruits were cut and examined. About 20 minutes were spent in each orchard. Judging from European literature, a good method for survey would be to cut and examine fruit which falls in the "June drop". Attacked fruit, according to reports, falls at an early stage and a massive drop may be indicative of the presence of the pest. Attempts should be made to rear the insect in order to obtain adults where they cannot be collected in adequate numbers.

Timing of surveys: Timing of survey is highly important in detection of this insect. Adults are active for around 10 days only and larvae about 20-25 days. Adults appear when the pear blossoms begin opening; therefore, traps should be placed in orchards just ahead of this time and kept in orchards until petal fall. Observations in 1965 on life histroy in Canada were as follows: First adult was collected on May 12 when pear blossoms were 75 percent open. First adult emerged from soil in insectary May 17. Newly hatched larvae and unhatched eggs were found May 19. No larvae could be found in the fruit after about June 15.

A key to aid in the recognition of the European apple sawfly and the pear sawfly is given on the following pages. (Survey and Detection Operations, PPC).

Recognition of the European Apple Sawfly and the Pear Sawfly

(Hymenoptera: Tenthredinidae)

David R. Smith [1]

The tables and illustrations presented here are intended to help in the identification of two closely related sawflies now known to occur in North America: The European apple sawfly, Hoplocampa testudinea (Klug), and the pear sawfly, Hoplocampa brevis (Klug).

The genus Hoplocampa includes about 35 species, 21 of which are known to occur in North America. In the larval stage, members of this genus live and feed in the fruits of Rosaceae, the known hosts being Malus, Pyrus, Prunus, Crataegus, Amelanchier, and Sorbus.

Ross (1943) revised the adults of the North American species but did not include H. brevis which was not known to occur here at that time. The species are separated primarily on the basis of genitalic characters, and slide mounts are necessary for accurate determination in many instances. In most cases, coloration cannot be relied on, but it may be used for the differentiation of several species within the genus. Bird (1927) gave some useful characters for generic identification of larvae. The larvae are known for only a very few species. No complete work has been done on them, and there is insufficient material available to permit the separation of testudinea and brevis from the larvae of other species.

For these reasons, the spearation of these two species from other members of the genus, especially for field determination, will have to be made on the basis of host plant. H. brevis and H. testudinea are the only species of this genus in North America which are known to feed on apple and pear. Consequently, if adults are found on the blossoms or in an orchard of these hosts, and if larvae are found feeding in the fruits of these hosts, and they fit the combination of characters given below for the genus, it is probable that they are one of these two species.

The distinction between the adults of these two species may be made on the basis of color as given in the table below. The larvae present more of a problem. The best characters seem to be the shape of the head capsule; however, this is difficult to interpret unless both species are present for comparison. The characters presented for the larvae are based on the last feeding stage; therefore, it is necessary to have the largest larvae available for identification. The same stages of each species should always be compared. (Illustrations by A. D. Cushman).

Hoplocampa, generic characters

Adult

1. Relatively small, 4 to 7 mm.
2. Color varies but is usually yellow-brown with black markings.
3. The second antennal segment is longer than wide (Fig. 2).
4. Antenna short, its length less than twice the width of the head (Fig. 2).
5. Tarsal claw with a short inner tooth.
6. Vein M of the fore wing joins Sc + R proximal to the junction of vein Rs + M with Sc + R, making cell 1M appear 5-sided (Fig. 2).
7. Anal cell of fore wing medially constricted into two cells, the basal anal cell (B) and the distal or petiolate anal cell (D)(Fig. 2). In many genera resembling Hoplocampa, the basal anal cell is absent.

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[1] Ent. Res. Div., ARS, U. S. Dept. Agr., Washington, D. C.

Larva

1. Prolegs present on abdominal segments 2 to 7 and 10 (Fig. 1). In many other sawflies, prolegs are present on abdominal segments 2 to 8 and 10.

2. Abdominal segments 1 to 8 each with 5 dorsal annulets (Fig. 1); annulets 2 and 3 with very small inconspicuous setae.

3. Early instars with body white, head capsule and plates on the 8th, 9th, and 10th abdominal segments black. Last feeding stage with head capsule and plates light.

4. Last feeding stage about 7 to 12 mm. in length.

5. Lives and feeds in the fruits of Rosaceae.

Characters for separation of *Hoplocampa testudinea* (Klug) and *H. brevis* (Klug)

Adult

Hoplocampa testudinea (Klug)	*Hoplocampa brevis* (Klug)
1. Large, 6 to 7 mm.	1. Small, 4 to 5 mm.
2. Head with a large black spot on vertex and frons.	2. Head entirely brown.
3. Dorsum of thorax entirely black.	3. Dorsum of thorax with considerable brown on mesonotum.
4. Wings blackish infuscate.	4. Wings slightly yellowish infuscate.
5. Female with sheath black.	5. Female with sheath brown.

Larva (last feeding stage)

1. Host: apple (recorded to a lesser extent from pear).	1. Host: pear (recorded to a lesser extent from apple).
2. Larger, 9 to 11 mm.	2. Smaller, 7 to 9 mm.
3. Head capsule usually lighter, yellow-brown.	3. Head capsule usually darker, brown with darker spots on frons.
4. In lateral view, head capsule appearing oblong (Fig. 3).	4. In lateral view, head capsule appearing shorter, more rounded (Fig. 4).
5. In frontal view, head capsule appearing evenly round (Fig. 5).	5. In frontal view, head capsule appearing slightly ovate, wider than long (Fig. 6).
6. Frons (F) longer than wide; upper portion of frontal sutures nearly straight (Fig. 5).	6. Frons (F) slightly wider than long; frontal sutures evenly rounded (Fig. 6).

Literature Cited

Bird, R. D. 1927. The external anatomy of the larva of *Hoplocampa halcyon* Nort. with a key to the instars and to those of related species (Tenthredinidae, Hymenoptera). Ent. Soc. Amer. Ann. 20:481-486.

Ross, H. H. 1943. North American sawflies of the genus *Ho(p)locampa* (Hymenoptera: Tenthredinidae). Amer. Ent. Soc. Trans. 69:61-92.

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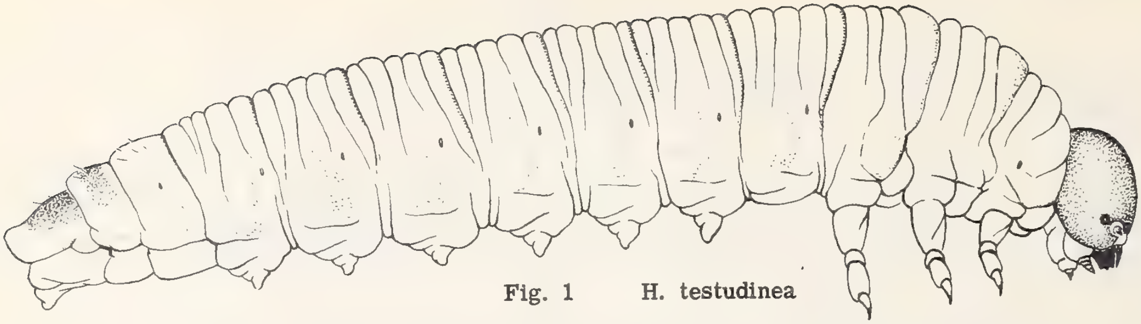

Fig. 1 H. testudinea

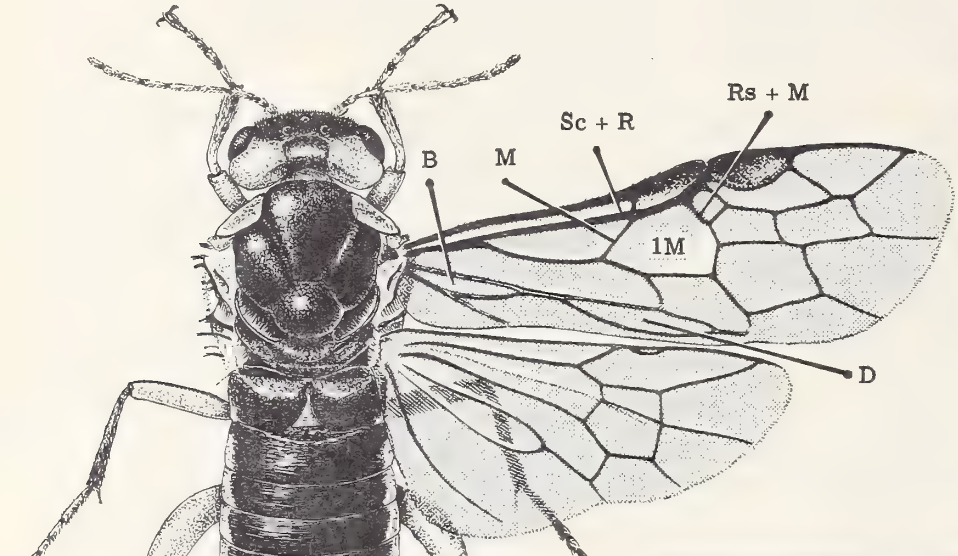

Fig. 2 H. testudinea

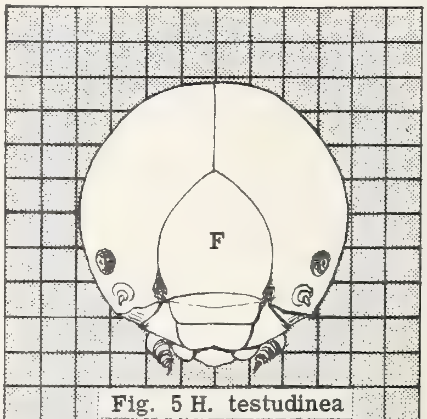

Fig. 5 H. testudinea

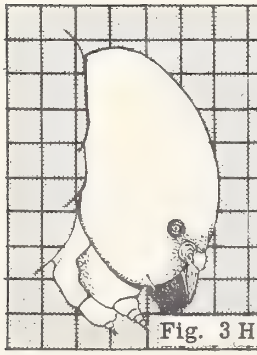

Fig. 3 H. testudinea

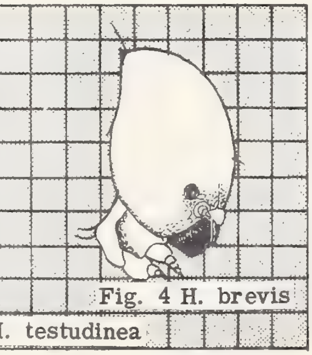

Fig. 4 H. brevis

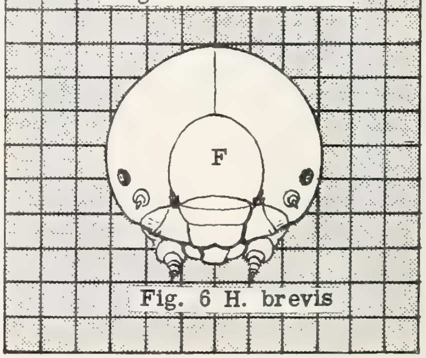

Fig. 6 H. brevis

HAWAII INSECT REPORT

Fruit Insects - RED WAX SCALE (*Ceroplastes rubens*) severe on mango trees in Waianae, Oahu; 30-40 adults per leaf. (Kajiwara).

Truck Crop Insects - SOUTHERN GREEN STINK BUG (*Nezara viridula* var. *smaragdula*) nymphs and adults dense on cheeseweed in Auwahi, Maui, 7 miles east of Ulupalakua. Early nymphs moderate on cheesweed in Kihei, Lahaina and Pukalani, Maui. None on cultivated crops. Definite buildup occurring in these areas. On Oahu, adult populations on snap beans in Waianae increasing where spray schedule not followed closely. Numbers (mostly nymphs) medium on several weed hosts in scattered areas in Honolulu, Oahu. Moderate on turnips in Hilo, Hawaii Island. (Miyahira, Yamamoto, Sumida, Yoskioka). A LEAF MINER FLY (*Liriomyza* sp.) light on tomato in Kihei, Maui, heavy on string beans in Waianae, Oahu. Larvae, pupae and adults numerous on leaves. (Miyahira, Funasaki). IMPORTED CABAGEWORM (*Pieris rapae*) caused moderate to heavy damage to cabbage in Waiakoa, Maui, on farms without good spray schedule. Minimum damage where regular spray program followed. (Miyahira). GREENHOUSE WHITEFLY (*Trialeurodes vaporariorum*) light on snap beans and tomato in Pukalani and Waiakoa, but medium to heavy on cantaloup in Kihei, all on Maui. Adults light on cucumbers (0.25 acre) in Kahaluu, Oahu. Continues heavy on snap beans throughout Waianae, Oahu. Counts on several older leaves from 4-acre farm showed 250 or more nymphs of various stages per square inch. (Miyahira, Sato, Yamamoto, Nakao).

Cotton Insects - A PLATASPID BUG (*Coptosoma xanthogramma*) medium on cotton plant growing adjacent to heavily infested pigeon pea plant at Pacific Heights in Honolulu, Oahu. Gregarious nymphs and adults attacking stems, bases of petioles and bolls. Some twigs 3/16 inch in diameter with 100 per foot, mostly fourth and fifth instar nymphs. This another new host record for this bug since first reported in late 1964. (Higa).

Forest, Ornamental and Shade Tree Insects - BARNACLE SCALE (*Ceroplastes cirripediformis*) adults light and nymphs heavy on *Citharexylum spinosum* (fiddlewood) in Kailua, Oahu; 8 trees infested with 5 adults and 90 nymphs per foot on branches 0.25 inch in diameter. (Haw. Ins. Rpt.). RED WAX SCALE heavy on *Brassaia actinophylla* (octopus tree) in Waianae, Oahu; about 35 adults per leaf. Light to medium on plumeria and *Bixa orellana* (lipstick plant). (Kajiwara). A NOCTUID MOTH (*Chrysodeixis chalcites*) very active in Lanikai, Oahu, on *Hibiscus syriacus*, *H. calycinus* and *Asystasia coromandeliana*. Larva few in numbers but caused considerable foliar damage, especially to *H. syriacus*. Effective predators, particularly *Polistes* spp., not generally active this time of year. (Haw. Ins. Rpt.).

Insects Affecting Man and Animals - CATTLE TAIL LOUSE (*Haematopinus quadripertusus*) severe on dairy cattle in Waianae, Oahu; numerous eggs and adults on tail and anal region. Species first recorded in State in April 1965 from Waimanalo, Oahu. Det. by C. R. Joyce. (Nakao). SHEEP KED (*Melophagus ovinus*) medium on several wild sheep shot at 9,000 feet elevation on slopes of Mauna Kea, Hawaii Island. (Kajiwara).

Beneficial Insects - A TACHINA FLY (*Trichopoda pennipes*) - Eggs present on 55 and 60 percent of southern green stink bug adults collected in Hilo, Hawaii Island, and in Auwahi, Maui, respectively. (Yoshioka, Miyahira). A SCARAB (*Oniticellus militaris*) recovered for first time in cow dung on Parker Ranch, Hawaii Island, in November 1965 by Dr. G. Bornemissza. Introduced from Southern Rhodesia in 1957 to break up dung and make it undesirable for horn fly breeding. Det. by R. Madge. (Chong). A EULOPHID WASP (*Encarsia formosa*) - Numerous adults reared from greenhouse whitefly on snap beans collected in Waianae, Oahu, in February 1966. *E. formosa* introduced from Canada in 1942. Det. by C. Yoshimoto. (Chong). A SCARAB (*Copris incertus*) very abundant in horse and cow dung on Parker Ranch, Hawaii Island. Adults averaged 20 per dropping. Introduced from Mexico in 1922 to control horn fly breeding. (Yoshioka). Buildup of a HISTERID BEETLE (*Hister nomas*) noticeble in cow dung on Parker Ranch, Hawaii Island, Large numbers occurred in November 1965 then subsided considerably. This histerid introduced to control horn fly larvae. (Yoshioka).

Nomenclatural Changes in the Leaf Beetles

(Chrysomelidae: Coleoptera)

Recent taxonomic studies by Gressitt and Kimoto (Pacific Insect Monograph, 1963) and Wilcox (A Synopsis of the North American Galerucinae, 1965) have altered the standing of the genus *Galerucella*. The former work recognized the priority of the name *Pyrrhalta* over *Galerucella*, and the later placed *Galerucella* as a synonym of *Pyrrhalta*. Therefore, all species formerly in *Galerucella* now belong in *Pyrrhalta*. This affects the names of five species occurring in the list of the "Common Names of Insects approved by the Entomological Society of America" (1965). The Pacific willow leaf beetle has often been recognized as a full species, but, as indicated by Wilcox, it is properly a subspecies of *decora*. The new scientific names that will be used by the Entomology Research Division for the five leaf beetles are as follows:

Elm leaf beetle	*Pyrrhalta luteola* (Muller)
Waterlily leaf beetle	*Pyrrhalta nymphaeae* (Linnaeus)
Cherry leaf beetle	*Pyrrhalta cavicollis* (LeConte)
Gray willow leaf beetle	*Pyrrhalta decora decora* (Say)
Pacific willow leaf beetle	*Pyrrhalta decora carbo* (LeConte)

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Weather continued from page 216.

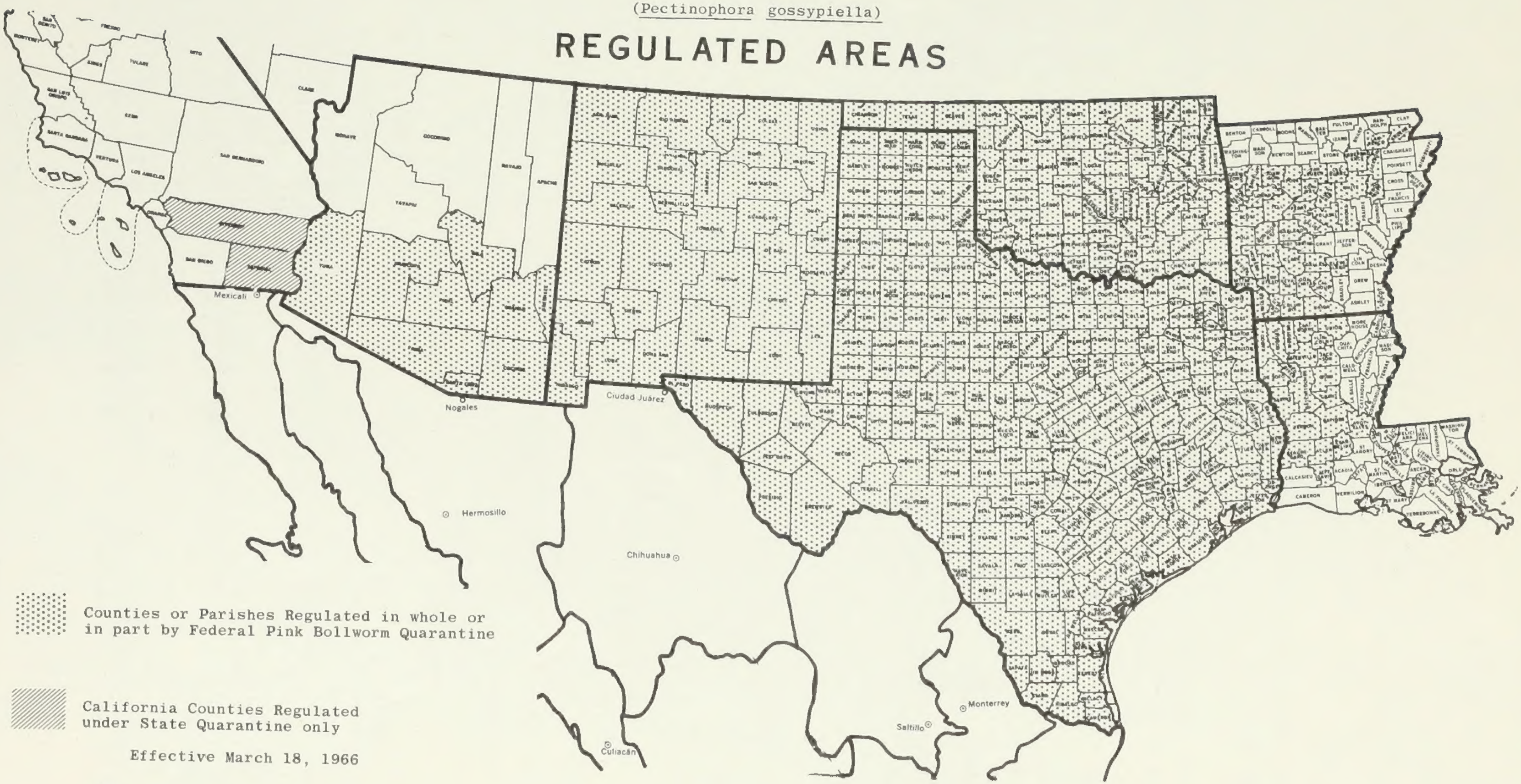
cool spell in the Southeast ended as temperatures rose to as much as 8° above normal. After a cold winter, the Southwest enjoyed warm weather for the second consecutive week, and the western Appalachian area experienced its first warm spell of the season.

PRECIPITATION: Rain continued in the Northwest with some coastal areas receiving up to 4 inches. Many parts of this region have had precipitation every day for more than a month, thus reversing the dry trend of December and January. On Monday, a tornado was reported northeast of Walla Walla, Washington, and during the weekend high winds accompanied rain and snow. At the opposite end of the Country, showers and thundershowers again plagued the Southeast. Amounts were relatively light but some locally heavy storms dumped up to 2 inches of rain. A severe thundershower on Saturday in the Raleigh vicinity, North Carolina, left 4 inches of golf ball sized hail on the ground. Severe storms struck the Central Plains on Thursday as the warm, moist gulf air clashed with the cool, dry air behind the cold front. Winds up to 80 m.p.h., and 1-inch hail accompanied thundershowers in Oklahoma and Kansas, a tornado was reported west of Liberty, Missouri, and blowing dust was severe in Nebraska. Storm damages were not heavy. Most of the Nation was dry last week. A quarter of the Country received no measurable precipitation and amounts were light in most other areas. The west central Appalachian area has been experiencing a dry spell for 3 weeks. The Northeast and Middle Atlantic States were dry for the second consecutive week. (Summary supplied by Environmental Data Service, ESSA).

PINK BOLLWORM

(*Pectinophora gossypiella*)

REGULATED AREAS



░ Counties or Parishes Regulated in whole or in part by Federal Pink Bollworm Quarantine

▨ California Counties Regulated under State Quarantine only

Effective March 18, 1966

Coop. Econ. Ins. Rpt. 16(12):233

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